

2.6 part II

Name: _____

Classwork / Homework

Pick at least three from each section to practice. Complete on separate paper!

Section A:

Find all zeros

1. $f(x) = x^4 - 2x^3 + x^2 + 12x + 8$

2. $x^4 - 3x^3 - 20x^2 - 24x - 8 = 0$

3. $f(x) = 3x^4 - 11x^3 - x^2 + 19x + 6$

4. $4x^4 - x^3 + 5x^2 - 2x - 6 = 0$

5. $g(x) = 2x^5 + 7x^4 - 18x^2 - 8x + 8$

Section B:Find an n^{th} degree polynomial given the conditions

1. $n = 3$

1 and $5i$ are zeros

$f(-1) = -104$

2. $n = 3$

 -5 and $4 + 3i$ are zeros

$f(2) = \underline{\underline{91}}$

3. $n = 3$

6 and $-5 + 2i$ are zeros

$f(2) = -636$

4. $n = 4$

 i and $3i$ are zeros

$f(-1) = 20$

5. $n = 4$

 $-2, 5, 3 + 2i$ are zeros

$f(1) = -96$